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ABSTRACT

This document provides ideas for activities on toxic waste sites. A toxic tour around the home accompanied by an adult is recommended to discover items that are dangerous for humans and the earth. Activities on understanding forests, pollution problems, recycling, and prevention of pollution for a healthy planet is included. (YDS)

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ED 458 110

So What's a Toxic Waste Site?
Kids for Saving Earth News
Action Program #16.

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Instructor Preparation

Steps to Help Kids Help the Earth

Getting Ready for the Toxic Waste Site Environmental Education Program

Step 1. Read over the poster for a basic education about toxic waste sites. Decide which activities will work best for your grade level.

Step 2. Make additional copies for class members or go to www.kidsforsavingearth.org and click on "So What's a Toxic Waste Site?". Look for the link that says "printable pages." You can easily make copies.

Step 3. Choose articles to read out loud and discuss in class (page 1 and 2 will present overview).

The Poster includes many action-oriented activities for your students. In addition you may want to choose one of the activities below.

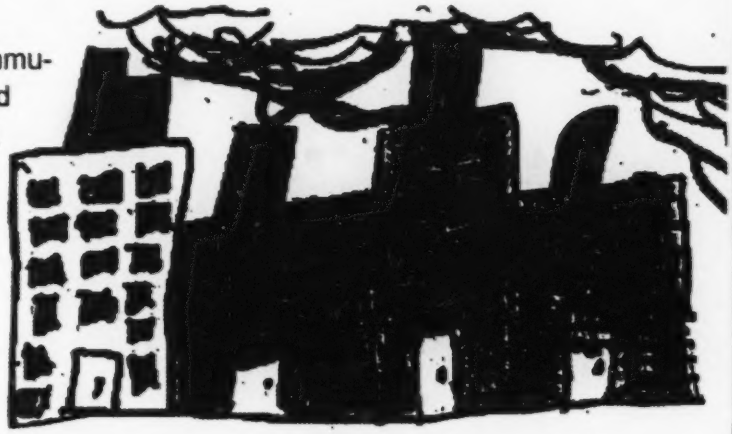
1. Check to see what cleaning and lawn care supplies are used at school as well as in your own home. Make a display for your students showing both safe and hazardous materials. Using the poster worksheet on p. 7, discuss the problems and solutions with your students.
2. Choose one state per student to discover what some states are doing about hazardous waste.
3 .Divide the class into work groups to study topics related to toxic waste sites. (possible topics listed below)

✔What's a Superfund site? Go to www.epa.gov/superfund/

✔Are there toxic waste sites in your community? Go to www.epa.gov/superfund/ and link to NPL (National Priorities List) Map

✔Explore your neighborhood grocery store, make a list of some toxic materials sold, and choose alternatives to replace them.

✔Study 1 week's worth of garbage in your home and decide how to cut back on the garbage by one-half. Divide it into categories: recyclable, to toxic waste facility, reusable, and trash.



✔Call ATSDR to interview some of the people who work for this government agency. Prepare a list of questions such as, "How do you as an individual work to protect us from the negative effects of hazardous waste sites?"

Important Resources

Kids for Saving Earth (763-559-1234)
kseww@aol.com or www.kidsforsavingearth.org
PO Box 421118, Minneapolis, MN
ATSDR (1-888-422-8737)
ATSDRIC@cdc.gov
www.atsdr.cdc.gov or www.atsdr.cdc.gov/child
The United States Environmental Protection Agency (EPA)
The Office of Children's Health Protection
http://www.epa.gov/children/ or www.epa.gov/superfund

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

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Kids for Saving Earth
PO Box 4211118
Minneapolis, MN 55442

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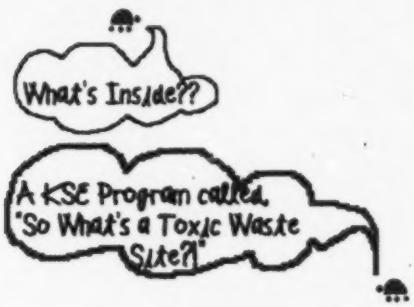
VIPS (Very Important Planet Savers)



For information call 763-559-1234 or go to the web site: kidsforsavingearth.org

Dear Kids for Saving Earth Members,

The enclosed Kids for Saving Earth (KSE) "Education Into Action" program has been sponsored by the Agency for Toxic Substances and Disease Control Registry (ATSDR), an agency of the U.S. Department of Health and Human Services. This federal agency is working to prevent and reduce the harmful effects of hazardous substances on the health of children. KSE is very pleased to be able to provide to you this "Education Into Action" environmental curriculum called "So What's a Toxic Waste Site?". This overview of environmental problems surrounding toxic waste sites, includes empowering Earth-saving activities for a variety of grade levels. We know that toxic waste sites can create major environmental problems. Toxic waste sites are a complicated problem to solve but we have to begin somewhere. It's important to develop good, sustainable Earth practices so we can take the first steps to healthy living. We must all work together to find solutions to these pollution problems.

Included are instructions to assist you in utilizing the educational material in the poster. These directions contain activities you can use in addition to those on the poster. After reviewing the information, choose a project for your students to undertake.

An important part of this process will include student and teacher feedback to KSE and ATSDR. Please keep this in mind as you complete the activities, this is your students' opportunity to speak out and be heard.

For the Earth and Its Children,

Tessa Hill

Tessa Hill, President, Kids for Saving Earth

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New printable educational materials at
www.kidsforsavingearth.org
Fill out our Teacher/Advisor Survey form and receive a
20% discount for the KSE EarthShop!

The KSE Promise
The Earth is my home.
I Promise to keep it healthy and beautiful.
I will love the land, the air, the water, and all living creatures.
United with friends,
I will save the Earth.

Do you Promise?

Kids for SAVing Earth

News

Join the Health Wave! p. 4

Your Kids for Saving Earth News — Action Program # 16

So What's A Toxic Waste Site?

It's Such a Waste!!

Webster's Dictionary says waste is useless or discarded material!

Waste is all that stuff we buy and don't use up. It's the leftover packaging like pop cartons, cereal boxes, and juice boxes. It's the trash that remains after industry creates a product. Or it's the old stuff we just can't use anymore, like old tires. We put all this trash in landfills (garbage dumps) that use up thousands of acres of land. We burn (incinerate) it, and we even ship it to other parts of the world. Every year in the U.S. we throw away 50 million pounds of toothbrushes and that's just a tiny part of all the trash we create. For example, in Florida, if every visitor and business in the state chose to dump their trash at the beach rather than in trash cans, in one year the pile would measure 5' high, 100' wide, and would cover the entire length of Florida's coastline.

We create municipal (community/household) trash, agricultural (farming) trash, industrial (factory) trash and mining (like coal, gold, or iron ore mining) trash. There's trash you haven't thought of!! We're running out of places to put it. No one wants it in his or her backyard. Do you?

You can make less waste!

Reduce, Reuse, Recycle, Shop Green, Compost!

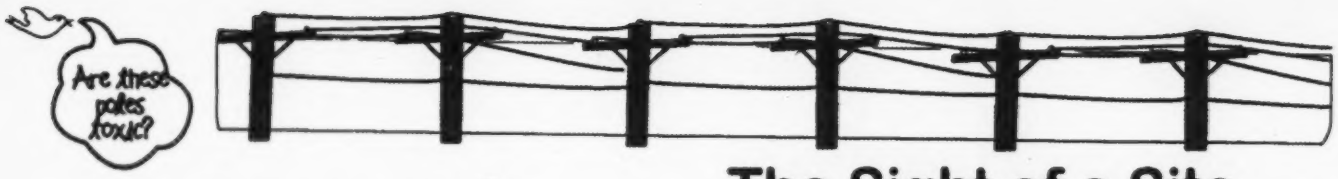
◆Buy only what you really need and choose products that have very little packaging. ◆Choose items you can reuse, like washable dishes, and reusable shopping and lunch bags. ◆Compost your plants, grass, leaves and kitchen scraps (no meat or milk products). Compost becomes soil and acts like fertilizer. ◆Always recycle plastic, paper, and metal. ◆Always shop for products that are made out of recycled material and are not toxic to you or the Earth!

The Worst Waste Is Toxic Waste!

One kind of trash that's really bad for you, animals, and the entire Earth, is called "Hazardous Waste". That means that it is poisonous or toxic. Toxicants are in products that you buy every day at the store. Just because products are sold at the store **does not mean they are safe!** Many of these toxic products we don't really need. When you go shopping, think about what safe products you might use. There are lots of them available now. What begins in your shopping cart as a pile of cleaning supplies, pest-control products, certain paints, or even preservative-treated wood, can end up in a toxic waste site. And sometimes the factories that made these products become toxic waste sites as well. Read the labels and you'll see why! Study this entire *KSE News* to learn ways you can help the Earth solve this dirty problem. There are thousands of toxic waste sites in the U.S. and they might be making us sick.

Kids' Art: Ashley, Max, Jennifer 9.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY



The Sight of a Site

Look around your neighborhood. You might be surprised how places contain toxic materials. The areas where these hazardous materials are made, used, or thrown away, when not carefully controlled, often become toxic waste sites. We've all been using some of these materials for years, but didn't know they were dangerous. For instance, it took time to learn that lead in paint is dangerous to kids. However, new laws have helped to protect millions of children from this toxic material. There's a lot more work to do, though. There's still lead paint in millions of homes. Make sure there is no lead paint in your home. Call your local public health department to learn how.

How do toxic waste sites begin? Here's an example!

Those telephone or electric poles and railroad ties that you see in your community are an example of a possible future toxic waste site problem. Billions of pounds of toxic pesticides and preservatives are used to protect the wood from insects, fungus, and decay. The telephone pole on the corner may not cause much harm, but problems can occur at the factories that make the chemicals. Next, consider the company that puts the chemicals on the wood, and finally, the waste site where the wood is dumped. When not properly handled, these chemicals may be adding poisons to our Earth's land, air, and water. And guess what? These poles and ties can be made from safer materials like recycled steel and plastic or concrete. So there **is** a pollution solution!

The National Priorities List (NPL)

The NPL is what the Environmental Protection Agency (EPA) has named the 1,500 most dangerous toxic sites. These sites must be cleaned up as soon as possible. There are lots of different kinds of toxic sites and many more may be added. These sites may be at military bases, local garbage dumps, or the factory down the street. Some have been cleaned up and are considered land that is safe and usable. EPA and ATSDR (The Agency for Toxic Substances and Disease Registry) are working together to help protect all of you from these hazards, but they need your help. Check out some "Pollution Solutions" below.

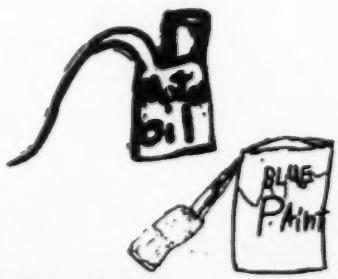
Pollution Solutions to Remember!

You can protect yourself!

- Don't use toxic substances in your home unless there is no other choice.
- With adult household members, use the **Healthy Steps** worksheets (p. 5-7) to get toxicants out of your home. Safely dispose of the toxicants as hazardous waste.
- If you discover something in your neighborhood that seems suspicious (like strange liquids in lakes, creeks, etc.; stuff oozing from the ground; unusual smells) or you see a "Danger" sign, Don't Go Near It! Instead, call your community's pollution control department.

You can help to make toxic waste sites.

Don't buy or use items that may be toxic. Check the labels before you buy. Find safe solutions for house cleaning, lawn care, and pest control.



You Can Get Help!

Ask your parents, teachers, or adult friends to call the Agency for Toxic Substances and Disease Registry (ATSDR). **1-888-422-8737 or e-mail ATSDRIC@cdc.gov**

Kids Art: Eric 9, Ana 9, Samantha 7

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Follow Me to the The Forest

A Teaching GrownUps Program™–Explore the forest with your parents to teach them what you have learned.

If we follow the river as it flows from the city to the forest, we can better understand how the pollution it picks up on the way affects the health of the forest and the living creatures who call it their home. The water, air, and soil in the forest can become very unhealthy for the animals and plants. All parts of nature are very important for a healthy Earth.

△ **Begin by understanding your forest.** Visit any forest to learn about these precious treasures. It might be a group of trees in your backyard, a cool dark forest in your local park, or a huge national forest preserved by our government to be a part of our lives forever.

△ **As you first enter your forest, take a moment to pause.** Look all around to see the variety of life in this home. Listen to the sounds of trees blowing in the breeze. Listen to the birds, bugs, and animals that live there. Take time to "Let the Forest Be With You."

△ **Now let's take a tour through your forest.** There is so much to see. This forest provides food, a home, and a playground for many of the Earth's precious species. You will discover that it can provide food, shelter, and fun for you, your friends, and your family. There are forests that are hundreds of feet tall like those in Northern California, and those that are only a few inches tall, like in the Arctic. Each forest will teach you something new!

△ **Take a notebook and pencil, and go on a treasure hunt.** List the treasures you find.

1 Upon entering the forest, lie down and look up. Next, write down what you see. Your teacher, parent, or friend can help. Above you is the forest canopy (covering or roof of the forest). Answer these questions: How many birds and what kind? How many bird nests, squirrels and squirrel nests, what color and size leaves? Do you see flowers, seeds and cones?

2 Next, get on your knees to look at the forest floor There's an entire community of life existing on this floor. Many of the species (types of living things) probably can't live anywhere else. Gently dig into the soil. Is it black, dry, wet, clay, or sandy? Is it covered with leaves, needles, moss, roots, nuts, berries, insects, and worms? Are the leaves decomposing (crumbling or decaying) and becoming soil? What are the plants on the forest floor? Does the forest canopy allow light to reach these plants? Write your answers down.

3 Now, stand up and look around. What do you see at eye level? Are there vines growing up the trees? What kind of bark is on the trees? Is it rough or smooth? Do you see tall bushes and new little trees growing upward? What helps them to grow? Do they receive enough water? Do animals eat the bark? Do the plants have enough light to grow tall? Are there dead trees? What lives in the dead trees? Is there moss on the trees? Do you see any animals? What is their water source? Is there a lake, pond, or creek? Make up your own questions and find answers.

△ **Understand your forest's pollution problems.** Forests are in trouble for many reasons. They're being cut down at a rate much faster than we can replace them. That means that many of the animals who need the forest to survive (live) will disappear. When pollution enters the forest, the balance of nature is upset. For example, if water and soil from a toxic waste site drain into the forest, what will happen to the fish in the water or the animals that drink the water? If the fish die, what happens to the animals that need the fish for food? If the insects that live in a forest die when a forest creek is polluted with pesticides, what happens to the birds who need insects for their food? When the soil is polluted, what happens to the worms who live there?

△ **What can I do?**

You can help educate your parents and adult friends by taking them on a tour of your forest. Copy this "Follow Me to the Forest" page and take it with you. Point out all the important parts of the forest and the things you really love. Teach them how important forests are to the health of the planet!

Poisons from Toxic Waste sites can kill the bugs I like to eat.

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Kids' Art: Katie, 10 Ashley, 10 Neera 9 Octavia, Adam, 9

Join the Health Wave!

What's Right With This Picture?

Toxic waste sites may be very dangerous, but here's some good news! There's a lot already being done to help safeguard you and your community. ATSDR works to protect your health around toxic waste sites and EPA cleans up the existing sites. However, they need more help. **You are a big part of the solution.** You can begin by discussing these issues in your school, church, or any environmentally concerned group. Study the "What's Right With This Picture?" Earth-saving activities below. Then, try them out! When you complete the worksheets on the reverse side of this *KSE News*, you will find more ways you can help protect the Earth from toxic pollution. Report any suspicious environmental problems in your neighborhood to adults and your public health department. To learn even more about toxic waste sites and how they link to all environmental problems, go to **KSE's Web site, www.kidsforsavingearth.org.**

Try out the Earth-saving activities below to "Join the Health Wave!"

Learn about the dangers of toxicants through education programs. Next, write letters to make positive suggestions to businesses and government leaders.

Keep my Earth clean and healthy!

Ask adults to help you take toxicants to hazardous waste drop-offs locations.

Have a "clean-up" day at your home and school. Replace toxic products with safe products.

Plant seeds, plants, and trees. Plants help filter pollution from the air and water.

Keep trash, oil, gas, and other hazardous waste out of the water.

Kids for Saving Earth
763-559-1234
kseww@aol.com
www.kidsforsavingearth.org

ATSDR
E-mail: ATSDRIC@cdc.gov
www.atsdr.cdc.gov
or atsdr.cdc.gov/child
Toll free: 1-888-422-8737

Kids' Art: Adam, Anne, Stormy, Shelby, Tara 3rd, Kellan 10

Make Copies p. 5

There's so much you can do in your home, your neighborhood, and your school to make sure your environment is healthy. If the Earth's air, water, and land are healthy, then you and all living creatures will be healthier.

Taking Healthy Steps

As you complete these Earth Actions, check each box. After you have finished all the steps, ask your instructor to award you a Defender of the Planet Certificate (see the certificate Web page: kidsforsavingearth.org).

☐ **Step 1 Extra! Extra! Read All About It!** Read the KSE/News/Poster to learn about the problems caused by hazardous waste and toxic waste sites.

☐ **Step 2 Take a Toxic Tour** Study the drawing of the "Steps to a Healthy Home" house. You will see many examples of items or activities that are bad for the Earth. Circle these items. How many did you find?

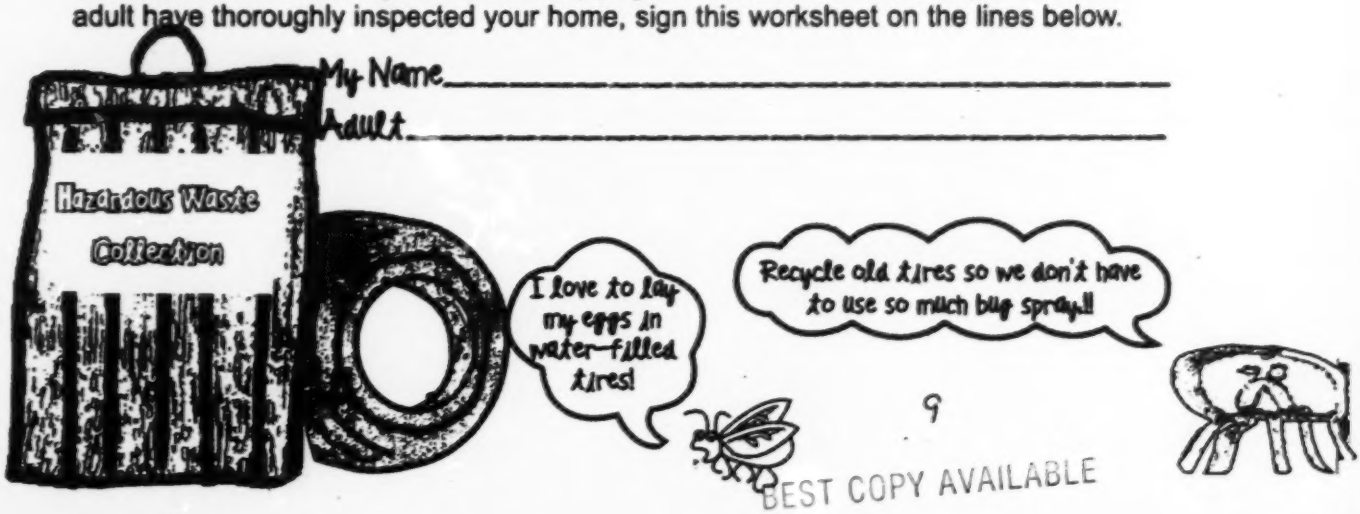
☐ **Step 3 "Become an Earth Inspector in Your Home"** With parents or other adults, using the worksheet on p. 7, check out the toxicants and other environmental problems in your home. Using the initials given, show how to dispose of these products. List new safer products to replace hazardous products. For poor environmental practices discover good ones.

☐ **Step 4 Make a Community Resources "KSE Power Poster"** Make a colorful poster about toxic waste problems. List the organizations where you can get help to make your community healthier. List the phone number and e-mail address for ATSDR (#1-888-422-8737 and ATSDRIC@cdc.gov) and the EPA (1-800-424-9346). Find phone and e-mail info on your State Public Health Department, your State Department of Natural Resources, your State Department of Pollution Control, your City's Public Offices, your City's Waste Disposal office, and whatever other organizations will help you keep your community protected from hazardous waste.

☐ **Step 5 Teach Grownups!!** It's important that your parents or other adults learn about toxicants and toxic sites. Discuss what you have been learning about toxicants with these adults and then together use study pages 6, 7, and 8. After both you and an adult have thoroughly inspected your home, sign this worksheet on the lines below.

My Name_____

Adult_____


Hazardous Waste
Collection
I love to lay my eggs in water-filled tires!
Recycle old tires so we don't have to use so much bug spray!!

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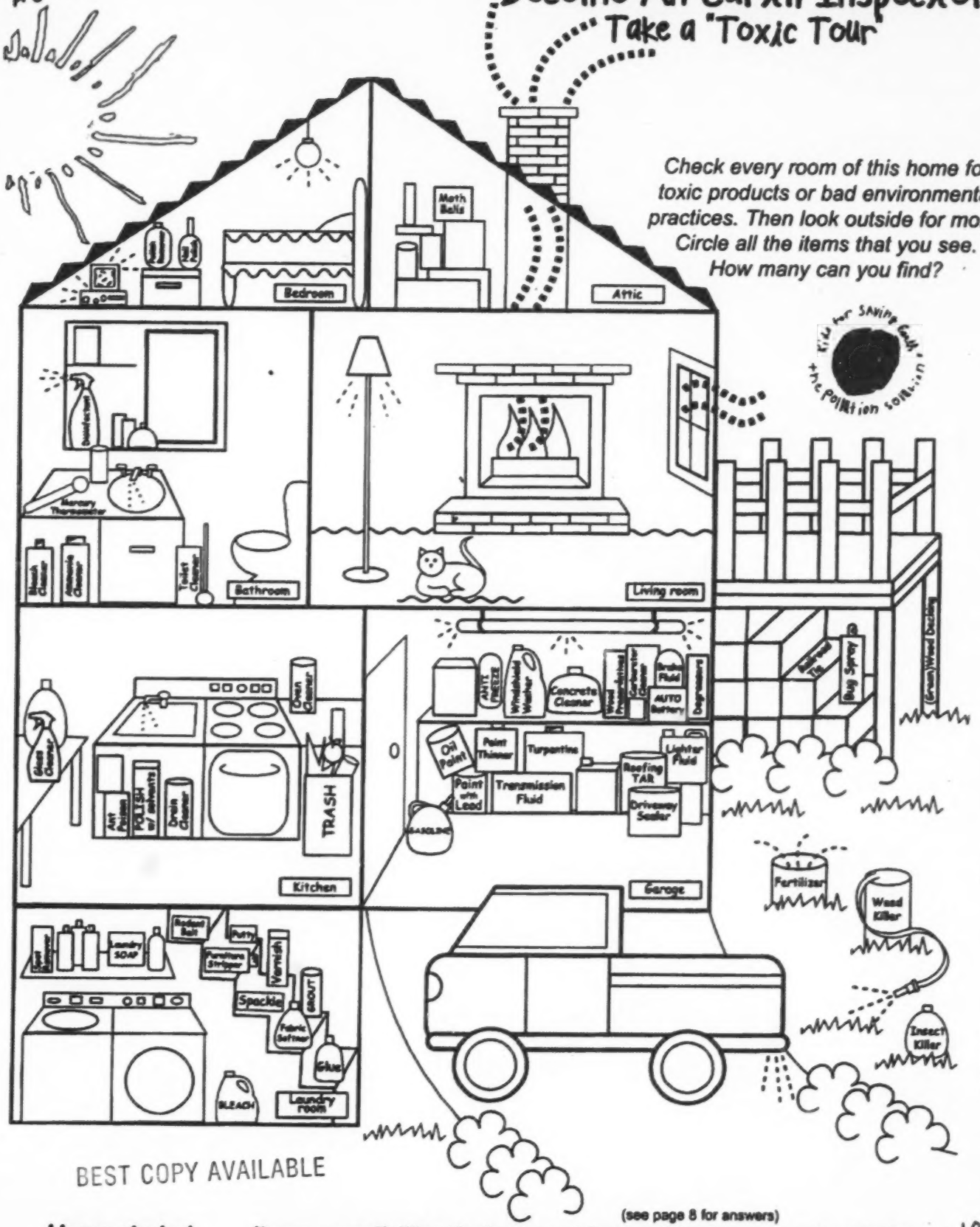
p. 6

Become An Earth Inspector
Take a "Toxic Tour"

Check every room of this home for toxic products or bad environmental practices. Then look outside for more Circle all the items that you see. How many can you find?



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(see page 8 for answers)

I have circled _____items or activities that may not be healthy for me or the Earth.

Step #1 Healthier Living in Your Home!

With a parent or other adult, take a "Toxic Tour" of your home. You will probably discover many items that are dangerous for you and the Earth. First, decide if you really need to use the product and if you can find a safe substitute. If you decide to dispose of the product, choose the safest disposal method. After you have toured your home, both you and your parent or other adult should sign at the bottom of the page.

Disposal Method

R=Recycle W=With lots of Water, dispose down drain (NOT a septic tank)
T=Dispose of dried solids in the Trash H=Save for a Household Hazardous Waste Collection

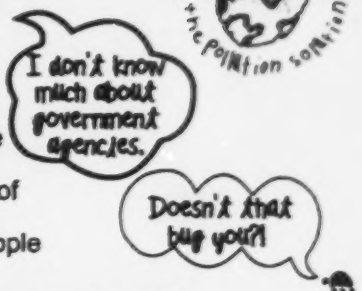
Pollution Problem	Disposal Method	We have a Pollution Solution	Pollution Problem	Disposal Method	We have a Pollution Solution
Household Items			**Automotive**		
Drain and Oven Cleaner	H		Used Motor Oil	R	
Toilet Cleaner	W		Auto Batteries	R	
Spot Remover	H		Insect Killer	H	
Aerosol Products	H		Transmission Fluid	R	
Empty Aerosol Products	T		Brake Fluid	R	
Rubbing Alcohol	W		Antifreeze	R	
Disinfectant	W		Gasoline, Fuels	R	
Bleach	H		Degreaser	H	
Cleaner with Bleach	W		Carburetor Cleaner	H	
Cleaner with Ammonia	W		Windshield Washer	W	
Polish with Solvents	H		**Home Improvement**		
Glass Cleaner	W		Latex Paint	T	
Mothballs	H		Oil-Based Paint	H	
Nail Polish and Remover	H		Old Paint with Lead	H	
Spot Remover	H		Stain, Varnish, Lacquer	H	
Mercury Thermometer	H		Paint Thinner	H	
Lawn and Garden			Turpentine	H	
Weed Killer	H		Furniture Stripper	H	
Rodent Bait	H		Paint Remover	H	
Bug Spray	H		Wood Preservatives	H	
Fertilizer with Weed Killer	H		Roofing Tar	H	
Pesticides for Plants	H		Driveway Sealer	H	
Mosquito Spray	H		Glue with Solvents	H	
BBQ Lighter Fluid	H		Water-Based Glue	T	
"Green" Decking Wood	H		Putty, Grout, Caulk	T	
Railroad Ties	H		Glaze, Spackle	T	
Activities in the Home That Are Bad for the Earth			Concrete Cleaner	H	
			Toxic Items Not Listed		
Air leaks in windows and doors					
Lights left on when not needed					
Leaky water faucets					
Throwing recyclable item in trash					
Electric appliances turned on when not in use(TVs, radios, etc.)					

We have taken the "Toxic Tour" of our home. We have learned how to dispose of toxic products and correct environmental problems in our home! Signatures_____ _____

Make Copies

What's a Government Agency??

ATSDR



A government agency is a department of the government that is assigned an important task to help the citizens of the United States. It's very important for us to understand that we all are a part of our government. All of us, even kids, can actively participate in government planning and activities. We can make suggestions to influence what these agencies are doing to help and protect us. We can ask questions. We can also ask for help. After you have studied the interview below, make a list of questions and suggestions to help ATSDR protect the health of the children of our Earth. Send this list to KSE, PO Box 421118, Minneapolis, MN 55442 or e-mail them to KSEWW@aol.com. We will be sure to give your list to people who can help you out at ATSDR.

ATSDR***ATSDR***ATSDR***ATSDR***ATSDR***ATSDR

About ATSDR Dr. Henry Falk is the head of the **Agency for Toxic Substances and Disease Registry (ATSDR),** which is part of the U.S. Department of Health and Human Services. ATSDR's mission is to prevent or reduce the harmful effects of hazardous substances in communities across the country.

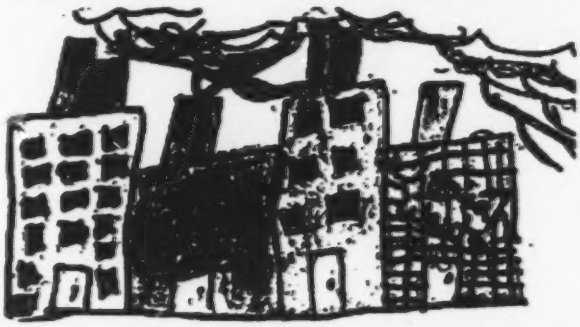
So what does all this mean? To find out, Everett Law, age 16, from Henry High in Minneapolis, MN, asked Dr. Falk some important questions.

What do you see as the most important part of your mission? "The most important part of our mission is to improve health issues that are due to toxic waste sites."

Can you explain to kids what a health assessment means? Very often in the communities with toxic waste sites there may be health problems from pollution in the air, water, or ground. ATSDR goes into these communities and answers questions like: Do kids have to worry about being exposed to toxicants? Are the chemicals that are in the area traveling into the water, soil, and air enough that it causes health problems? If we decide there are possible health concerns, we work with the citizens of the area, the EPA, and the polluters to find solutions.

Do you think that children can become ill from toxic waste sites, and why?
Maybe not with a small amount of chemicals, but there is no question that if the level of chemicals is high enough they can become ill. For example, we see cases of illness due to high levels of mercury. It is very important to clean up the waste sites.

How can kids help prevent more toxic waste?
By paying attention to environmental issues and letting everyone know what you are concerned about. By belonging to environmental groups or worldwide organizations such as Kids For Saving Earth and learning about these issues, kids can educate and warn other people. Toxic waste sites occur because polluters are careless. They pollute without letting others know about it. Kids should keep their eyes open for polluters, always stay away from the pollution, and then notify an adult.



Join The Kids for Saving Earth Network for Free! Cancer sadly took Clinton Hill's life at the age of 11. But Clint's dream inspired a movement of children all over the world to protect the Earth. He loved the Earth and all its living creatures. He called himself a "Nature Lover and Defender of the Planet." He wanted to make this planet clean and beautiful. Clint drew a poster and started a club called Kids for Saving Earth (KSE). Clint's family established Kids for Saving Earth as a non-profit organization with the mission of educating, inspiring, and empowering children to protect the Earth.

Send the completed form below to: KSE, PO Box 421118, Minneapolis, MN 55442

Name_____ Organization_____
Title_____ Number of Members_____ Ages_____ to_____
Address_____
City_____ State_____
Phone Day_____ Phone Night_____
Fax_____ E-mail_____
Free Membership includes educational material as issued. Other memberships available.
Paid Group Membership ($15) includes guidebook, 30 full-color certificates, ongoing mailings.

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Answer _____55